

## PRODUCT DATA SHEET

# SikaGrout®-3500 WP

### HIGH PERFORMANCE OFFSHORE WIND TURBINE ENGINEERED GROUT

#### DESCRIPTION

SikaGrout®-3500 WP is a 1-part, cementitious, free flowing grout with high early and final strengths. Specifically designed for offshore wind turbine foundation joint filling. Layer thickness: 50–200 mm. Application temperature range +2 °C to +25 °C.

#### USES

Grouted joints on the following foundations:

- Monopiles
- Jackets
- Tripods

SikaGrout®-3500 WP is suitable for the following concrete exposure classes:

X0, XC 1-4, XD 1-3, XS 1-3, XF 1-4, XA 1-2, WA

#### CHARACTERISTICS / ADVANTAGES

- Rapid strength development
- Long workability
- Good flowability ensuring complete filling of joints
- Good stability including under water
- Volume stable
- Low temperature application

#### APPROVALS / CERTIFICATES

- Applicability of the Fatigue Verification CEB-FIP Model Code 90, fib-Model Code 2010 and DNV-OS-C502, SikaGrout®-3500 WP, Leibniz Universität Hannover, Expert's report
- Fatigue Behaviour Under Pure Compression Tested Under Water CEB-FIP Model Code 90, fib-Model Code 2010 and DNV-OS-C502, SikaGrout®-3500 WP, Leibniz Universität Hannover, Expert's report
- Production and Application of Cement Based Grout DAfStb Guideline, SikaGrout®-3500 WP, kiwa, Test report No. 16/0281-1/LA

## PRODUCT INFORMATION

<b>Composition</b>	Cement, selected fillers and aggregates, special additives
<b>Packaging</b>	25 kg, 1000 kg, 1500 kg bags
<b>Appearance / Colour</b>	Grey powder
<b>Shelf life</b>	12 months from date of production
<b>Storage conditions</b>	Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.
<b>Maximum Grain Size</b>	D <sub>max</sub> :~ 5 mm

## TECHNICAL INFORMATION

<b>Compressive Strength</b>	Early strength: class A, to Guideline DAfStb. 100 mm cubes			
	<b>Temperature</b>	<b>Curing Time</b>		(EN 12390)
		<b>24 hours</b>	<b>28 days</b>	
	+20 °C	> 50 MPa	~130 MPa	
	+5 °C	> 20 MPa		
	+3 °C	>10 MPa		
	Equivalent to class C 100/115 concrete (150 × 300 cylinders)			(EN 206-1)
<b>Shrinkage</b>	Shrinkage class SVKB 0 according to DAfStb Guideline			
<b>Expansion</b>	> 0,1 % volume after 24 hours.			

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	81–85 L of water for 1000 kg of powder at +20 °C 83–87 L of water for 1000 kg of powder at +2 °C
<b>Fresh Mortar Density</b>	~2,3 kg/l
<b>Yield</b>	1000 kg of powder yields ~516 litres of mortar
<b>Layer Thickness</b>	50 mm min. / 200 mm max.
<b>Flowability</b>	a2 (> 550 mm diameter) after 4 hours (DAfStb 2011)
<b>Ambient Air Temperature</b>	+2 °C min. / +25 °C max.
<b>Pot Life</b>	~4 hours at temperatures in the range from +2 °C to +30 °C

## APPLICATION INSTRUCTIONS

### MIXING

SikaGrout®-3500 WP must be mixed using suitable grout mixing equipment combined with agitator for continuous large volume mixing. Volume capacity of equipment must be applicable to the volume of material being mixed for a continuous operation. Equipment trials must be considered to ensure product can be mixed satisfactory.

Pour the minimum water ratio in the correct proportion into the grout mixer. While stirring the water, slowly add the powder to the water. Add more water within the mixing time up to the maximum allowed until the desired consistency is achieved.

Mix continuously for a minimum of 7 minutes until the grout achieves a lump free smooth consistency. Do not add more water than the maximum specified.

### APPLICATION

Reference must be made to further documentation where applicable, such as relevant method statement, application manual and installation or working instructions.

#### Placing: Grout pump application

Equipment trials must be considered to ensure product can be pumped satisfactory.

### CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.

## BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary

due to circumstances beyond our control.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

## ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

## LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

### Sika Services AG

Tüffenwies 16

8048 Zürich

Tel: +41 58 436 4040

[www.sika.com](http://www.sika.com)



SikaGrout-3500WP-en-(05-2019)-1-1.pdf

PRODUCT DATA SHEET  
SikaGrout®-3500 WP  
May 2019, Version 01.01  
020201010010000150